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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,138	01/14/2004	Isao Otsuka	MERL-1530	3824
22199 7590 02/22/2008 MITSUBISHI ELECTRIC RESEARCH LABORATORIES, INC. 201 BROADWAY 8TH FLOOR CAMBRIDGE, MA 02139			EXAMINER ARMSTRONG, ANGELA A	
			ART UNIT 2626	PAPER NUMBER
			MAIL DATE 02/22/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/757,138	OTSUKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Angela A. Armstrong	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on June 9, 2004, has been considered by the examiner.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13, 69, 70, 71-72, and 73-77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 13, the claim recites "only segments of the multimedia having a particular importance level less than the importance level threshold are reproduced." It is unclear how the system reproduces only segments having an importance level greater than the importance level threshold as recited in claim and also only reproduces segments having a particular importance level less than the importance level threshold as recited in claim 13.

Claim 69 recites the limitation "a predetermined threshold" in line 3 and "the predetermined threshold" in line 5. There is insufficient antecedent basis for this limitation in the claim. It is unclear if applicant refers to the predetermined threshold recited in claim 67 or another different threshold.

Claim 70 recites the limitation "a predetermined threshold" in line 3 and "the predetermined threshold" in lines 5 and 8. There is insufficient antecedent basis for this

limitation in the claim. It is unclear if applicant refers to the predetermined threshold recited in claim 67 or another different threshold.

Claims 65-70 recite the limitation “records the metadata on the recording medium in association with the segments.” It is unclear what exactly is in association with the segments.

Claims 71-72 recite the limitation “recording the metadata on the recording medium in association with the segments.” It is unclear what exactly is in association with the segments.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 53-64 and 78 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 53-64 and 78 are directed to a computer program. Computer programs claimed as the description or expressions of the programs are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program’s functionality to be realized. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process (see USPTO Interim Guidelines for Patent Subject Matter Eligibility) and the Office treats a claim for a computer program, without the computer-readable medium needed to realize

the computer program's functionality, as nonstatutory functional descriptive material. When a computer program is claimed in a process where the computer is executing the computer program's instructions, the Office treats the claim as a process claim. When a computer program is recited in conjunction with a physical structure, such as a computer memory, the Office treats the claim as a product claim.

### *Claim Objections*

5. Claims 73-77 objected to because of the following informalities. Appropriate correction is required.

Claims 73 and 75 recite the limitation "the segment searched by the unit for searching." It is unclear as to what applicant refers with respect to the segment searched by the unit for searching. The Examiner assumes applicant is referring to a segment that is retrieved by the unit for searching.

Claim 76 recites the limitation "the segment searched by the searcher." It is unclear as to what applicant refers with respect to the segment searched by the searcher. The Examiner assumes applicant is referring to a segment that is retrieved by the unit for searching.

Claim 77 recites the limitation "reproducing video or audio corresponding to the segment searched by the searching." It is unclear as to what applicant refers with respect to the segment searched by the searching. The Examiner assumes applicant is referring to a segment that is retrieved during the searching process.

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-64, 69-70, and 75-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masumitsu et al (US Patent Application Publication No. 2002/0157095) in view of Gibbon et al (US Patent No. 6,714,909).

Regarding claim 1, 5, and 24-26, Masumitsu discloses a system for summarizing multimedia (paragraphs, (p), 0010-0012): comprising storage for storing a multimedia file partitioned into a sequence of segments, and a metadata file including index information and an importance level information for each segment in the sequence, the importance level being continuous over closed interval (Figure 3, 4, 6, 8; p0010-0012; p0026-0029; p0038); a unit for selecting an importance level threshold in the closed interval (p0038; 0058; 0070); and a unit for reproducing, using the index information, only segments of the multimedia having a particular importance level greater than the importance level threshold (p0058). Masumitsu does not specifically teach the partitioned multimedia file is compressed. However, compressing multimedia files so as to reduce storage requirements was well known. In a similar field of endeavor, Gibbon discloses a system and method for automated multimedia content indexing and retrieval, in which the multimedia data stream is compressed, using known compression techniques, partitioned and stored in a database (col. 4, line 58- col. 5, line 3). It would have

been obvious to one of ordinary skill at the time of the invention to modify the system of Masumitsu to implement a compression scheme as taught by Gibbon, for the purpose of maximizing storage capabilities, as was well known in the art.

Regarding claim 2, the combination of Masumitsu and Gibbon discloses the sequence of the segments is temporal, and the index information includes a start time and an end time of each segment (p0034).

Regarding claim 3, the combination of Masumitsu and Gibbon discloses the sequence of the segments is temporal, and the index information includes a frame number (p0034).

Regarding claim 6, the combination of Masumitsu and Gibbon discloses the importance level is contained in a file that is distinct from the multimedia file (Figure 1, elements 20, 21, 30, and 34; p0028-0029).

Regarding claim 7, the combination of Masumitsu and Gibbon discloses the importance level is real number (p0056-0066).

Regarding claim 8, the combination of Masumitsu and Gibbon discloses the multimedia comprises text and binary data (p0028).

Regarding claims 9 and 10, the combination of Masumitsu and Gibbon discloses the importance level threshold is expressed as range of real number values (p0056-0066).

Regarding claim 11, the combination of Masumitsu and Gibbon discloses the importance level threshold is viewer selected (p0068).

Regarding claim 12, the combination of Masumitsu and Gibbon discloses the importance level threshold is selected automatically (p0064).

Regarding claim 13, the combination of Masumitsu and Gibbon discloses only segments of the multimedia having a particular importance level less than the importance level threshold are reproduced (p0010-0012; p0026-0029; p0038).

Regarding claim 14, the combination of Masumitsu and Gibbon discloses the multimedia file includes a plurality of programs (p0051), and further comprises a unit for reproducing only segments of the plurality of programs having a particular importance greater than the importance level threshold p0010-0012; p0026-0029; p0038).

Regarding claim 15, the combination of Masumitsu and Gibbon discloses abstraction ratio for representing the importance level threshold (p0065-0066).

Regarding claim 16, the combination of Masumitsu and Gibbon disclose the segments are ordered according to the importance level, and further comprising: unit for reproducing the segments in a descending order of the importance level (Figure 3; p0033; 0070).

Regarding claim 17, the combination of Masumitsu and Gibbon discloses the reproducing terminates after a predetermined amount of time (p0070).

Regarding claim 18, the combination of Masumitsu and Gibbon discloses a recorder for recording the compressed multimedia and the metadata file on the storage (p0028-0029).

Regarding claims 19-22, 69-70, and 75-76, Masumitsu does not specifically disclose only segments greater than a time threshold are reproduced or that segments shorter than the time threshold are extended. Gibbon discloses (col. 5, lines 16-27) processing of audio data (sampling and feature extraction) is implemented so that frames and/or clips of the audio are obtained that meet duration requirements such that the clip is long enough to obtain reliable data and information. It would have been obvious to one of ordinary skill at the time of the invention



to modify the system of Masumitsu to reproduce segments greater than a time threshold or extend segments shorter than a time threshold, so as to ensure reliable and usable data and information is obtained and provided to the user.

Regarding claim 23, the combination of Masumitsu and Gibbon discloses a unit for searching the multimedia to locate a particular segment to begin the reproducing (p0069).

Regarding claims 27-64; claims 27-64 are similar in scope and content to claims 1-26 and are therefore rejected under similar rationale.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 65-68, 71-74, and 77-78 are rejected under 35 U.S.C. 102(b) as being anticipated by Masumitsu.

10. Regarding claim 65, Masumitsu discloses a recorder (p0026,0029—where the client 10, the content provider 20, and digest server 30 may comprise single or multiple computers which store, retrieve and provide playback the data) for recording an inputted video signal or audio signal on a predetermined recording medium; unit for partitioning the video signal or audio signal into predetermined segments to extract a feature from the video signal or a feature from the audio signal for each segment (Figure 3, 4, 6, 8; p0010-0012; p0026-0029; p0038 p0058; p0070); and unit for generating metadata including feature data corresponding to the features and

start positions of the segments (Figure 3, 4, 6, 8; p0010-0012; p0026-0029; p0038 p0058; p0070); wherein the recorder records the metadata on the recording medium in association with the segments (Figure 3, 4, 6, 8; p0010-0012; p0026-0029; p0038 p0058; p0070).

11. Regarding claims 66 and 78, Masumitsu discloses the predetermined recording medium further comprises: a first directory for storing files corresponding to the metadata; and a second directory for storing files corresponding to the segments (Figure 3, 4, 6, 8; p0010-0012; p0026-0029).

12. Regarding claim 67, Masumitsu discloses a comparator for performing comparison between a value corresponding to the feature data and a predetermined threshold (p0058); unit for searching the segments recorded on the recording medium for a segment that matches a result from the comparison; and unit for reproducing video or audio corresponding to the segment retrieved by the unit for searching (p0010-0012; p0026-0029; p0058; p0069).

13. Regarding claim 68, Masumitsu discloses the unit for searching searches for a segment that corresponds to the feature data having a value larger than the threshold as a result of the comparison by the comparator (p0010-0012; p0026-0029; p0058; p0069).

14. Regarding claims 71-74 and 77, claims 71-74 and 77 are similar in scope and content to claims 65-68, and therefore are rejected under similar rationale.

### ***Conclusion***

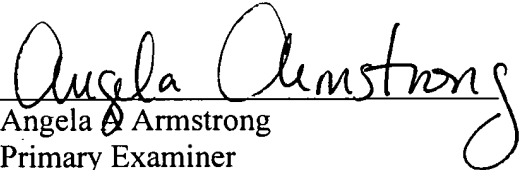
15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Li (US Patent No. 7,203,620)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 571-272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick N. Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Angela A. Armstrong  
Primary Examiner  
Art Unit 2626